HU-25A Guardian #524 07/19/17

Aircraft: <u>HU-25A Guardian - LaRC #524</u> (See full schedule)
Flight Number: OIB Summer Science Data Flight #3

Payload Configuration: ATM Nav Data Collected: No Total Flight Time: 2.7 hours

Submitted by: Luci Crittenden on 07/19/17

Flight Segments:

From:	BGTL	То:	BGTL			
Start:	07/19/17 13:07 Z	Finish:	07/19/17 15:48 Z			
Flight Time:	2.7 hours					
Log Number:	<u>17F001</u>	PI:	Nathan Kurtz			
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryospheric Science					
Purpose of Flight:	Science					
Comments:	OIB completed the Hiawatha I aircraft and the science instru	_akes mission out of Thule toda ments performed well.	ay. No new problems with the			

Flight Hour Summary:

	17F001
Flight Hours Approved in SOFRS	44.2
Total Used	39.5
Total Remaining	4.7
17E001 Flight Poports	

17F001 Fli	17F001 Flight Reports					
Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
07/10/17	OIB Summer Science ICF	Check	3.7	3.7	40.5	
07/12/17	2017 OIB Summer Science Transit	Transit	2.9	6.6	37.6	
07/12/17	2017 OIB Summer Science Transit	Transit	2.3	8.9	35.3	
07/13/17	2017 OIB Summer Science Transit BGSF- BGTL	Transit	1.9	10.8	33.4	
07/17/17	OIB Summer Science Data Flight#1	Science	3.8	14.6	29.6	
07/18/17	OIB Summer Science Data Flight #2	Science	3.7	18.3	25.9	
07/19/17	OIB Summer Science Data Flight #3	Science	2.7	21	23.2	
07/24/17	OIB Summer Science Data Flight #4	Science	3.9	24.9	19.3	
07/25/17	OIB Summer Science Data Flight #5 & #6	Science	3.7	28.6	15.6	
07/25/17	OIB Summer Science Data Flight #5 & #6	Science	3.5	32.1	12.1	
07/26/17	OIB Transit Legs BGTL-BGSF-KBGR	Transit	2	34.1	10.1	
07/26/17	OIB Transit Legs BGTL-BGSF-KBGR	Transit	3.7	37.8	6.4	
07/27/17	OIB Transit Leg KBGR- KLFI	Transit	1.7	39.5	4.7	

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Related Science Report:

OIB - HU-25A Guardian #524 07/19/17 Science Report

Mission: OIB
Mission Summary:

Mission: Hiawatha Lakes

This short mission is intended to measure properties of the numerous supraglacial lakes that form during summer in the area above Hiawatha Glacier. It is expected that the new narrow-pulse laser of the ATM may be able to measure the depth of these lakes with fairly high resolution.

Weather today was almost totally clear, both at Hiawatha and at our base at Thule, with just a few scattered low clouds south of Hiawatha. However we encountered a problem when we found that the half-dozen perennial meltwater lakes we had targeted on the upper part of Hiawatha Glacier were simply not present. Vestiges of all of these lakes were visible in the form of deformed ice and possible lake shorelines, but the lakes themselves had apparently drained. We are very confident that they were not just ice-covered - the water simply wasn't there. Fortunately our pilots noticed patches of blue to the north of Hiawatha, and we turned toward them. We successfully overflew around a dozen supraglacial lakes in this area, roughly between Hiawatha and the southern part of lower Humboldt Glacier. Then we turned back to Hiawatha, flew down the centerline of that glacier, and overflew the proglacial lake and river in front of it twice.

We flew two ramp passes at Thule, one at 1200' AGL, and another at 1500' AGL. All instruments performed well.

Data volumes: DMS: 15 Gb FLIR: 1 Gb Headwall: 53 Gb

Narrow Swath ATM: 41 Gb

total data collection time: 2.4 hrs

Images:

Map of Hiawatha Lakes



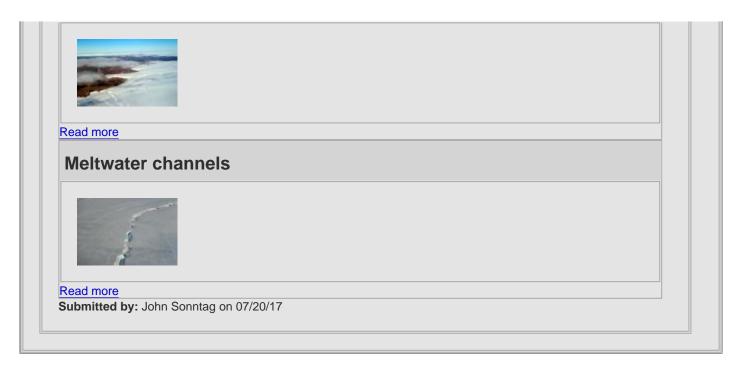
Read more

Supraglacial lake



Read more

Flank of ice sheet



Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

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